Reduction of Fractures and Dislocations Under Local Anesthesia.—The use of local anesthesia for the reduction of fractures and dislocations is a practical precedure deserving more widespread usage. Twenty cubic centimeters of two per cent novocain solution injected into the hematoma surrounding the ends of the fragments will allow of manipulation of the fragments without pain.

In the Vienna Industrial Clinic of Lorenz Böhler, local anesthesia is used exclusively for the reduction of simple fractures. The technique is not difficult. It should not be necessary to remind those using this method that strict asepsis is essential. A 20 cubic centimeter Luer, 22 to 24 gauge needle 1.5 inches in length, and ampoules of 2 per cent novocain are the materials required. The skin is prepared as for a spinal puncture, or intravenous therapy. Needle is passed through the skin and other soft parts, avoiding region known to contain large vessels and nerves, into the hematoma. If the end of the needle is in the space surrounding the ends of the fragments, old fluid blood may be aspirated into the syringe. This aspiration of old blood should always be carried out, otherwise an intermuscular or an interfascial injection will be made and no anesthesia of fragments result. The anesthesia lasts as long as two hours, and if radiographs show the fragments need further adjustment it is not necessary to reinject.

For dislocations the novocain is injected around the dislocated epiphysis and into the joint capsule. The use of local anesthesia has not proved as satisfactory for reduction of dislocations as for the reduction of fractures, in the author's hands.

EDMUND BUTLER, San Francisco.

The Treatment of Laryngeal Tuberculosis. The upper respiratory passages no doubt play a very important rôle in the course of pulmonary tuberculosis.

Under normal conditions they are the first line of defense for the lungs; under pathological conditions, however, they lose their protective value and may become a causative factor in the development of pulmonary tuberculosis.

For this reason it has been advocated that rhinolaryngology be included in the training of all tuberculosis specialists, and therefore, in many sanatoria, throat departments are now being established. The main purpose of a throat department is to discover the incipient forms of tuberculosis of the larynx at the time when they are most responsive to treatment. Their development follows a subjectively asymptomatic course, and they may thus escape the doctor's attention without routine examination. Another purpose is to properly detect nontuberculous pathological conditions, which require special systemic treatment, that a maximum of benefit may be obtained during the patient's stay at the sanatorium.

In consideration of the treatment of tuberculosis of the larynx, we must mention briefly its etiology:

1. Infection by contact, occurring most frequently in the first year of the disease. In this type, which permits a comparatively favorable prognosis, the soft parts of the larynx are affected.

2. Infection through the blood or lymph stream during the allergic stage or during the stage of relative anergy. Specific involvement of the soft parts of the larynx only is at that stage very rare; the cartilaginous parts are mostly involved, and the prognosis is decidedly unfavorable. Involvement of the cartilage undoubtedly signifies a break-down of the defenses of the body.

Pathologically, anatomically, and clinically, the latter cases differ from the former, for here the process starts, not with the changes in the voice but more so with dysphagia and pain, caused by the involvement of the cartilaginous framework of the larynx. These menacing symptoms impair the nutrition of the tuberculous patient, aggravate the processes in the lungs, and ultimately are a frequent contributory cause of death.

Treatment involves a consideration and utilization of the therapeutic measures adapted for combating the foci in the lungs. Numerous reports show that relatively far advanced cases can obtain complete cure after the establishing of artificial pneumothorax or after phrenicotomy, while the larynx receives conservative treatment only.

The main requisite for a successful treatment is absolute silence and the control, by the will power of the patient, of superfluous coughing. His cooperation in this respect is absolutely necessary.

Laryngeal rest is so essential that gastrotomy and tracheotomy have been performed to eliminate passive movement of the larynx in deglutition and respiration. In some cases the active immobilization of the affected side of the larynx is secured by severing or blocking the recurrent laryngeal nerve.

Phototherapy in the form of heliotherapy, Roentgenotherapy, quartz lamp, Cromayer's lamp, and radium are of help in building up the local resistance of the tissues.

The treatment of the most distressing symptom, dysphagia, may be briefly mentioned. This may be relieved by the application of trichloracetic acid, but unfortunately its effect is only temporary, as it lasts only as long as the slough remains. The application of a 2 per cent solution of butyn, or 5 per cent cocain, anesthesin, orthoform, tannin-analgesin or sucking orthotroches, and the sipping of a 2 per cent solution of antipyrin have proved beneficial.

Other measures which are also helpful are Bier's passive hyperemia, produced by placing a

tourniquet on the neck for a few hours, alcohol injection or excision of the superior laryngeal nerve, and application of a warm 80 per cent solution of Chaulmoogra oil with one per cent menthol followed by careful massage.

The galvanocautery, now widely used, is of inestimable value, serving as a destructive agent for diseased tissue, as a stimulant for granulation tissue and as a means of puncturing areas exhibiting marked edema. But the greatest care in the selection of cases and in the use of this therapeutic agent is essential for the best results.

When dysphagia is due to involvement of the epiglottis, it may be amputated surgically or removed by galvanocautery. Pathology elsewhere in the larynx can also be destroyed by the above mentioned methods or by diathermy.

In extreme cases of dysphagia, where no other treatment brings relief, abatement of pain by morphin is the only choice.

Diet also plays a highly important rôle, particularly when dysphagia is present. Soft, bland, rather than liquid, foods are better tolerated. Individualization is essential, for one patient will often tolerate a food poorly taken by another. Having the patient eat in the sitting posture with the head bent forward, and swallowing air after each deglutition, will eliminate the choking spell.

Choice of climate represents a complicated problem of various physiotherapeutic factors such as temperature, barometric pressure, air currents, composition, etc. When properly combined they exert a powerful beneficial effect on tuberculosis of the larynx. The consensus of opinion seems to be that the best climate for laryngeal tuberculosis is the warm sea climate such as is found throughout most of southern California.

CHARLES RUBINSTEIN, Duarte.

Non-Specific Urethritis in the Female.—As long ago as 1906 it was known that a non-specific infection was a common occurrence in the female urethra. Taussig[1] demonstrated by culture that practically 50 per cent of female urethras were infected. Regardless of this early recognition of the condition and the frequency of its occurrence, there is very little to be found in textbooks concerning it, and a review of the literature reveals almost nothing on the subject. Indeed, the fact that it is so commonplace might be responsible for its being so lightly regarded.

Every physician is familiar with the female patient who complains of irritation in the region of the bladder outlet, of burning on urination and of urgency and some frequency which is worse during the day or when she is nervous or tired. These symptoms suggest chronic non-specific urethritis, but it is extremely important not to make this diagnosis without a thorough examination, for the same symptoms may be seen when upper urinary pathology is present, and this must be excluded before making the final diagnosis.

The proximity of the female urethra to the vagina predisposes to its infection. There is always more or less trauma to the urethra during childbirth. Irritating vaginal discharges bathe the urethral meatus, causing an inflammation and lowering the resistance of the urethral mucosa.[2] Bacterial invasion from the vagina is then easily accomplished and gradually extends upward to the bladder neck and trigone.

Examination of the patient with chronic non-specific urethritis reveals either a slightly inflamed external urethral meatus, or more frequently fibrosis, which causes more or less contraction of the orifice. The voided urine sometimes shows a few pus cells and a few bacteria, but it is the rule for the catheterized specimen to be normal. Cysto-urethroscopic examination shows a subacute inflammation with some fibrosis and granulations throughout the urethra, about the posterior portion of the bladder neck, and on the lower part of the trigone. As the condition becomes more chronic, fibrosis predominates and there are seen small polypi at and just below the bladder neck. However, this picture does not preclude urethritis to the exclusion of everything else, for the infection in the urethra may extend downward from renal or bladder pathology, and this must be excluded.

The chronically infected female urethra is treated by first reducing the inflammation. The irritating vaginal discharge is corrected as far as possible. Balsams and alkalinizers are given by mouth and the urethra may be irrigated with a mild antiseptic solution, followed by instillation of a solution such as silver iodid or gomenol in olive oil to allay the inflammation. It is also necessary to soften the fibrosis and to destroy the granulations and polypi. This may be done by massaging the urethra by passing a sound. In the more stubborn cases, cauterization of the granulations and polypi with silver nitrate, or their destruction with the fulgurating electrode through the cystoscope or endoscope may be necessary.

Summary.—The chronically infected female urethra is a common occurrence, but is frequently overlooked. The patient complains of symptoms of "cystitis" and has a practically normal urine. The infection is usually due to bacterial invasion from the vagina to a urethral mucosa of lowered resistance. Fibrosis, granulations and polypi are the usual cysto-urethroscopic findings. Urethral massage and dilatation with sounds and sometimes cauterization or fulguration are used to correct this condition after the cause of the inflammation has been eliminated.

ROGER W. BARNES, Los Angeles.

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1 Taussig, F. J. Am. J. Obst. and Gynec., 54, 465, October 1906.

2 Berlin, L. M. Nonspecific Urethritis. Urol. and Cutan. Rev., 30, 463, August 1926.